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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
CLAYTOR, DEIRDRE RENEE	
ART UNIT	PAPER NUMBER
1617	
MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/615,763	JEE, UNG-KIL	
	Examiner	Art Unit	
	Renee Claytor	1617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 February 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,7,14 and 19-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 7, 14, 19-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicants response filed on 2/11/2008 is acknowledged. Applicants have amended the claims and presented arguments over the 35 USC 103 rejection. In particular, Applicants argue that the combination of Lee and Chen in the 35 USC 103 rejection requires a poloxamer as an essential ingredient and assert that a poloxamer would affect the basic and novel characteristics of the product defined in the balance of claim 1. Applicants also argue that Lee is drawn to an injectable composition, and Chen is drawn to an oral composition and it is not clear that a person of ordinary skill in the art would combine these references based on these teachings. Applicants further argue that there is no mention of how to formulate a clear injectable composition.

In response to the above arguments, it is noted that Lee teaches the addition of a poloxamer in its composition. However, it is noted that the injectable anesthetic composition of the present invention consists essentially of the microemulsion, a surfactant and a member selected from the group listed in claim 1. The transitional phrase "consisting essentially of" limits the scope of the claim to those materials that do not materially affect the basic and novel characteristics of the claimed invention (see MPEP § 2111.03). Applicant has the burden of showing that the introduction of additional materials would materially change the characteristics of applicant's invention.

Regarding the dosage forms taught by the prior art, the purpose of the Lee et al. reference is to formulate an injectable propofol composition with an appropriate solvent and is free of the side effects listed in the Background section. Although the Chen et al.

invention is described with reference to its value in oral dosage forms, it is stated that the invention is not so limited (Col. 4, lines 62-64) and can be formulated for parenteral administration (Col. 35, lines 9-13). Regarding the issue of optical clarity, it is noted that neither the Lee et al. nor Chen et al. reference was used to address optical clarity. It is pointed out that the only limitation in the claims referring to clarity is "...wherein the composition exhibits a transmittance at 660 nm of greater than about 90%..." which is a limitation of claim 1 and this was addressed in the second 35 USC 103 rejection further in view of De Tommaso (PG Pub 2002/0107291). Therefore, any of the materials taught by Lee et al. or Chen et al. were not used to address the limitation of optical clarity.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Applicants argue that the 35 U.S.C. 103 rejection over Lee et al. and Chen et al. and in further view of De Tommaso (PG Pub 2002/0107291) teaches away from the present invention because Lee teaches a microemulsion, Chen teaches an oral

formulation and De Tommaso teaches an injectable composition. Those limitations were described above and further De Tommaso reads on an injectable formulation.

Accordingly, the following modified rejection is given below due to Applicants amendments.

Claim Rejections – 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 14, 19-24 rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (U.S. Patent 6,743,436) in view of Chen et al. (U.S. Patent 6,383,471).

Lee et al. teach an injectable anesthetic composition comprised of 1 to 2% by weight of the total composition of propofol (meeting the limitation of claim 1; Col. 4, lines 20-22). The composition further comprises a co-surfactant which is SOLUTOL HS 15 (polyethylene glycol 660 hydroxystearate, in an amount of 0.1 to 10% of the total composition (further meeting the limitation of claim 1; Col. 4, lines 36-38), egg lecithin in an amount of 0.1 to 5% of the total composition (meeting the limitations of claim 1; Col. 4, line 38), ethanol and propylene glycol (meeting the limitations of claim 19; Col. 4, lines 36-48). A tonicity agent, such as glycerol is also added (meeting the limitation of claim 14; Col. 5, lines 38-40).

Lee et al. do not teach the injectable propofol composition further comprised of tetrahydrofurfuryl alcohol polyethyleneglycol ether, or a member selected from the group consisting of pH regulators, thickening agents, antioxidants, complexing agents, or antiseptics.

Chen et al. teach a pharmaceutical composition for the improved delivery of ionizable hydrophobic compounds (including propofol; Col. 7, line 11). The composition contains solubilizers to enhance the solubility of the active agent, with tetrahydrofurfuryl alcohol PEG ether, glycerol, and propylene glycol being among those preferred (further meeting the limitation of claim 1; Col. 31, lines 54-57 and Col. 32, line 46-48). The composition further contains pH regulators, such as ascorbic acid and gluconic acid (meeting the limitation of claims 1 and 20; Col. 11, lines 9-54), thickening agents such as methylcellulose (further meeting the limitation of claim 1 and 21; Col. 32, line 31), sulfates (further meeting the limitation of claim 1 and 23; Col. 33, line 21), benzyl alcohol (meeting the limitation of claim 24; Col. 31, line 45) and phosphate (as sodium phosphate; meeting the limitation of claim 22; Col. 11, line 30).

Accordingly, it would be obvious to one having ordinary skill in the art at the time of the invention to combine the teachings of Lee et al., which teach an anesthetic composition for intravenous injection comprised of propofol, polyethylene glycol 660 hydroxystearate, egg lecithin, ethanol, propylene glycol and glycerol, with Chen et al. which teaches utilizing the ingredients tetrahydrofurfuryl alcohol PEG ether, pH regulators, thickening agents, complexing agents, antioxidants, and antiseptics for improved delivery of ionizable hydrophobic compounds. One would have been

motivated to combine the teachings of Lee et al. with Chen et al. in order to formulate an improved injectable composition, and with the addition of the tetrayhydrofurfuryl alcohol polyethylene glycol ether, provide a maximal concentration of propofol to be administered to a patient.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. and Chen et al. as applied to claims 1, 14, 19-24 above, and in further view of De Tommaso (PG Pub 2002/0107291).

Lee et al. and Chen et al. teach formulations comprised of propofol, polyethylene glycol 660 hydroxystearate, tetrahydrofurfuryl alcohol PEG ether, lecithin, a liquid excipient, a tonicity agent, pH regulators, thickening agents, complexing agents, antioxidants and antiseptics.

Lee et al. and Chen et al. do not teach formulations comprised of a bile salt or a mixture of a bile salt and lecithin.

De Tommaso also teaches an injectable pharmaceutical composition comprised of propofol, in which a bile salt, including glycocholic acid, cholic acid, and taurocholic acid, is incorporated into the injectable formulation (meeting the limitation of claim 7; Pg. 1, paragraph 0015). The composition is further comprised of lecithin, and the formulation is prepared by adding lecithin to an aqueous solution of the bile salt (Pg. 2, paragraph 0025, 0029).

It is obvious to vary and/or optimize the amount of bile salts provided in the composition, according to the guidance provided by De Tommaso to provide a

composition having the desired properties such as the desired percentage weight of the bile salt for a more transparent injectable formulation. It is noted that "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

Furthermore, it is obvious that because the components of the propofol composition of the prior art and the components of the present composition are the same, it is obvious that they will share the same physical properties, such as a transmittance at 660nm of greater than about 90%. Patent law states that "products of identical chemical composition can not have mutually exclusive properties." A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

Accordingly, it would be obvious to one having ordinary skill in the art at the time of the invention to combine the teachings of Lee et al. and Chen which teach an anesthetic composition for intravenous injection comprised of propofol, polyethylene glycol 660 hydroxystearate, tetrahydrofurfuryl alcohol PEG ether, lecithin, a liquid excipient, a tonicity agent, pH regulators, thickening agents, complexing agents, antioxidants and antiseptics, with De Tommaso et al. which teach an injectable composition comprised of propofol and bile salts. One having ordinary skill in the art would be motivated to combine the teachings of Lee et al. and Chen et al. with De

Tommaso to provide an injectable anesthetic composition that is transparent and clear and free of foreign particles inside the vial or bottle, which is important for product safety (as taught by De Tommaso, paragraph 0007).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Renee Claytor whose telephone number is (571)272-8394. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan can be reached on 571-272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Renee Claytor

/SREENI PADMANABHAN/

Supervisory Patent Examiner, Art Unit 1617